



XML Messenger API

Document Version:	1.2.01
Issue Date:	03/05/2014

Table of Contents

Introduction.....	3
Test Account Information.....	3
XML Interface.....	4
Creating an XML request	5
The Request Structure	5
Adding Order Detail	6
Adding Item Detail.....	7
Adding Item Options	8
Adding Coupon Detail.....	9
Adding Fraud Checking Detail	10
Adding Level 2 Card Data Detail.....	11
The Response Structure	12
Payment Type – Credit Card	13
Sale	13
PreAuth.....	13
PostAuth	13
Credit	13
Forced PostAuth.....	13
Extended PostAuth.....	14
Void	14
Payment Type – Visa Debit Card (Hybrid cards)	15
Order Elements.....	16
Sale Elements	17
PreAuth Elements	18
PostAuth Elements	19
Credit Elements	20
Forced PostAuth Elements.....	21
Extended PostAuth Elements.....	22
Void Elements	23
Detailed Element List – General Order Elements	24
Detailed Element List – Credit Card Payment.....	27
Detailed Element List – Item Elements	29
Detailed Element List – Option Elements	29
Result Elements.....	30
Result Elements – Payment Type: All.....	30
Result Elements – Payment Type: Credit Card & Visa Debit Card.....	33

Introduction

PSiGate specializes in the integration and deployment of e-commerce payment service solutions. PSiGate's payment solutions enable automated and secure authorization and fulfillment of credit card transactions. PSiGate communicates directly with major Canadian and U.S. credit card financial institutions and supports businesses that wish to deploy an online storefront.

This document provides merchants and their affiliates with the tools to integrate PSiGate's *XML Messenger Interface* so that PSiGate may process their transaction requests.

Note: PSiGate's *XML Messenger Interface* supports only credit card payment processing.

Test Account Information

PSiGate's testing environment supports a shared test account that you are welcome to use while you develop and test your interface.

IMPORTANT:

- *Do **NOT** use real credit card numbers within the test environment.*
- *To receive your production URL when you are ready to go live, refer to the Welcome E-mail you or the merchant received upon completion of your gateway account's setup.*

Send your test transactions to: <https://dev.psigate.com:7989/Messenger/XMLMessenger>.

To process a transaction through the test account, pass the following control tag values within your transaction requests:

StoreID: teststore
Passphrase: psigate1234

To review your test transactions, log into <https://dev.psigate.com> with the following account information:

CID: 1000001
User: teststore
Pass: testpass

If you require an unshared test account, send an e-mail to support@psigate.com. We should provide you with the test account within one week of your request.

XML Interface

The XML Interface transfers data securely from a merchant's host server to PSiGate's transaction server.

Development Network Requirements:

- Access to: dev.psigate.com port 7989

Production Network Requirements:

- Merchants shall receive the Production Network Requirements within a Welcome E-Mail sent to them once their gateway account application is complete.

Creating an XML request

The Request Structure

The *XML Messenger Interface* receives transaction requests sent by Merchant. The transaction requests are then forwarded to PSiGate's payment engine for real-time processing. An *Order* element encloses each XML transaction request, meaning that the request must begin with `<Order>` and end with `</Order>`. Each transaction request consists of transaction elements that define the request. The minimum number of transaction elements needed to successfully transmit an order depends on the type of transaction request.

*****Note:** The ampersand symbol (“&”) is not a valid character and will cause an error if inputted within any element of the XML request. Please encode any special characters you wish to transmit to the XML Messenger Interface.

The following is an example of a basic **Sale** transaction request:

```
<?xml version="1.0" encoding="UTF-8"?>
<Order>
  <StoreID>teststore</StoreID>
  <Passphrase>psigatel234</Passphrase>
  <Subtotal>10.00</Subtotal>
  <PaymentType>CC</PaymentType>
  <CardAction>0</CardAction>
  <CardNumber>4111111111111111</CardNumber>
  <CardExpMonth>02</CardExpMonth>
  <CardExpYear>08</CardExpYear>
  <CardIDNumber>3422</CardIDNumber>
</Order>
```

This request processes a **Sale** transaction in the “**teststore**” account for ten dollars and applies the charge to the credit card number “4111111111111111” whose expiration date is “02/08”. The value of the *SubTotal* element is the dollar amount to charge the card. The value of the *PaymentType* element, which is set to “CC” (credit card) in the above example, establishes the payment context. The value of the *CardAction* element, which is set to “0” (**Sale** transaction) in the above example, determines the type of transaction request. The values of the *CardNumber*, *CardExpMonth* and *CardExpYear* elements set the credit card details. The value of the *CardIDNumber* element tells the payment engine to verify that “3422” is the security code printed on the card. For a list of the elements required for each transaction type, please refer to the *XML Interface - Order Elements* table.

Adding Order Detail

Add more order detail to a request by including additional *Order* elements. For a complete list of recognized *Order* elements, refer to the ***XML Interface Detailed Element Listing – General Order Elements*** table.

The following is an example of a **Sale** transaction with additional order detail:

```
<?xml version="1.0" encoding="UTF-8"?>
<Order>
  <StoreID>teststore</StoreID>
  <Passphrase>psigate1234</Passphrase>
  <Bname>John Smith</Bname>
  <Bcompany>PSiGate</Bcompany>
  <Baddress1>123 Main St.</Baddress1>
  <Baddress2>Apt 6</Baddress2>
  <Bcity>Toronto</Bcity>
  <Bprovince>Ontario</Bprovince>
  <Bpostalcode>L5N2B3</Bpostalcode>
  <Bcountry>Canada</Bcountry>
  <Phone>416-555-2092</Phone>
  <Fax>416-555-2091</Fax>
  <Email>someone@somewhere.com</Email>
  <Comments>No comments today</Comments>
  <Tax1>5.00</Tax1>
  <ShippingTotal>5.00</ShippingTotal>
  <Subtotal>10.00</Subtotal>
  <PaymentType>CC</PaymentType>
  <CardAction>0</CardAction>
  <CardNumber>4111111111111111</CardNumber>
  <CardExpMonth>02</CardExpMonth>
  <CardExpYear>08</CardExpYear>
  <CardIDNumber>3422</CardIDNumber>
</Order>
```

Adding Item Detail

Add item details within your transaction requests by including *Item* elements. The *Item* elements will display in your online reports and email receipts. We list the predefined sub elements of the *Item* elements in the *XML Interface Detailed Element Listing – Item Elements* table.

Note: If your transaction request includes item detail, we will calculate the *Subtotal* value from *ItemPrice* and *ItemQty* values.

Note: If you include the *Subtotal* element within a transaction request, the derived item detail *Subtotal* amount will supersede the amount given in the *Subtotal* element.

The following is an example of a **Sale** transaction with item detail:

```
<?xml version="1.0" encoding="UTF-8"?>
<Order>
  <StoreID>teststore</StoreID>
  <Passphrase>psigate1234</Passphrase>
  <Bname>John Smith</Bname>
  <Bcompany>PSiGate</Bcompany>
  <Baddress1>123 Main St.</Baddress1>
  <Baddress2>Apt 6</Baddress2>
  <Bcity>Toronto</Bcity>
  <Bprovince>Ontario</Bprovince>
  <Bpostalcode>L5N2B3</Bpostalcode>
  <Bcountry>Canada</Bcountry>
  <Phone>416-555-2092</Phone>
  <Fax>416-555-2091</Fax>
  <Email>someone@somewhere.com</Email>
  <Comments>No comments today</Comments>
  <Item>
    <ItemID>PSI-BOOK</ItemID>
    <ItemDescription>XML Interface Doc</ItemDescription>
    <ItemQty>2</ItemQty>
    <ItemPrice>10.00</ItemPrice>
  </Item>
  <Tax1>5.00</Tax1>
  <ShippingTotal>5.00</ShippingTotal>
  <PaymentType>CC</PaymentType>
  <CardAction>0</CardAction>
  <CardNumber>4111111111111111</CardNumber>
  <CardExpMonth>02</CardExpMonth>
  <CardExpYear>08</CardExpYear>
  <CardIDNumber>3422</CardIDNumber>
</Order>
```

This request adds a single item identified as “PSI-BOOK” to the order. The *Subtotal* value automatically becomes a *Subtotal* amount of \$20.00, derived from the multiplication of the *ItemQty* which is “2” and the *ItemPrice* which is “\$10.00”.

Adding Item Options

Additionally, you may require customized item descriptors.
You may add item options such as colour, size or weight to describe an item's details.

The following is an example of a **Sale** transaction with item detail and item options:

```
<?xml version="1.0" encoding="UTF-8"?>
<Order>
  <StoreID>teststore</StoreID>
  <Passphrase>psigate1234</Passphrase>
  <Bname>John Smith</Bname>
  <Bcompany>PSiGate</Bcompany>
  <Baddress1>123 Main St.</Baddress1>
  <Baddress2>Apt 6</Baddress2>
  <Bcity>Toronto</Bcity>
  <Bprovince>Ontario</Bprovince>
  <Bpostalcode>L5N2B3</Bpostalcode>
  <Bcountry>Canada</Bcountry>
  <Phone>416-555-2092</Phone>
  <Fax>416-555-2091</Fax>
  <Email>someone@somewhere.com</Email>
  <Comments>No comments today</Comments>
  <Item>
    <ItemID>PSI-BOOK</ItemID>
    <ItemDescription>XML Interface Doc</ItemDescription>
    <ItemQty>2</ItemQty>
    <ItemPrice>10.00</ItemPrice>
    <Option>
      <Type>Electronic</Type>
      <url>http://www.psigate.com/docs/</url>
      <file>XML.doc</file>
    </Option>
  </Item>
  <Tax1>5.00</Tax1>
  <ShippingTotal>5.00</ShippingTotal>
  <PaymentType>CC</PaymentType>
  <CardAction>0</CardAction>
  <CardNumber>4111111111111111</CardNumber>
  <CardExpMonth>02</CardExpMonth>
  <CardExpYear>08</CardExpYear>
  <CardIDNumber>3422</CardIDNumber>
</Order>
```

The *Option* sub elements, “*Type*”, “*url*” and “*file*” are **not** predefined. PSiGate will recognize the inputted string of an *Option* sub element as the option name and the inputted string that is enclosed by the *Option* sub element as the option value. For example, if <Colour>Red</Colour> was included as an *Option* sub element, the option name would be “Colour” and its value would be “Red”.

Adding Coupon Detail

The following is an example of a basic **Sale** transaction request with additional coupon detail:

```
<?xml version="1.0" encoding="UTF-8"?>
<Order>
  <StoreID>teststore</StoreID>
  <Passphrase>psigate1234</Passphrase>
  <PaymentType>CC</PaymentType>
  <CardAction>0</CardAction>
  <CardNumber>4111111111111111</CardNumber>
  <CardExpMonth>02</CardExpMonth>
  <CardExpYear>08</CardExpYear>
  <Item>
    <ItemID>PSI-BOOK</ItemID>
    <ItemDescription>XML Interface Doc</ItemDescription>
    <ItemQty>2</ItemQty>
    <ItemPrice>10.00</ItemPrice>
  </Item>
  <Item>
    <ItemID>COUPON</ItemID>
    <ItemDescription>10% discount</ItemDescription>
    <ItemQty>1</ItemQty>
    <ItemPrice>-2.00</ItemPrice>
  </Item>
</Order>
```

This request includes a negative dollar amount for one of the items. The payment engine allows negative dollar amounts for individual items as long as the entire order is for a positive dollar amount.

Note: If the coupon is a percentage of the order total, you must calculate the coupon amount and send the amount as a negative value to apply to the order total.

Adding Fraud Checking Detail

To fully utilize this payment engine's fraud checking capabilities, you must include credit card verification data (CVV, CV2 etc.); address verification data and the customer's IP address. For a complete list of Fraud checking responses, refer to ***Result Elements – Payment Type: Credit Card***.

The following is an example of a **Sale** transaction with additional fraud checking detail:

```
<?xml version="1.0" encoding="UTF-8"?>
<Order>
  <StoreID>teststore</StoreID>
  <Passphrase>psigatel234</Passphrase>
  <Baddress1>123 Main St.</Baddress1>
  <Bcity>Toronto</Bcity>
  <Bprovince>Ontario</Bprovince>
  <Bpostalcode>L5N2B3</Bpostalcode>
  <Bcountry>Canada</Bcountry>
  <CustomerIP>192.0.10.55</CustomerIP>
  <CardIDNumber>3422</CardIDNumber>
  <Subtotal>10.00</Subtotal>
  <PaymentType>CC</PaymentType>
  <CardAction>0</CardAction>
  <CardNumber>4111111111111111</CardNumber>
  <CardExpMonth>02</CardExpMonth>
  <CardExpYear>08</CardExpYear>
</Order>
```

This request sends the customer's IP address and security number (3 or 4 digit number found on the front/back of the credit card) to PSiGate's payment engine for verification. The *CardIDNumber* element verifies that the customer has correctly inputted the card's security number; the *Baddress1* and *Bpostalcode* elements verify that the inputted street number and postal code match that on record with the issuing bank; the *CustomerIP* element verifies that the inputted city, province and postal code match their machine's city, state/province and country. The payment engine returns its Card verification response within the *CardIDResult* response element, the Address verification response within the *AVSResult* response element and the GeoIP response within the *IPResult*, *IPCity*, *IPRegion* and *IPCountry* response elements. PSiGate compares the IP location responses to the inputted *Bcity*, *Bprovince* and *Bcountry*.

Adding Level 2 Card Data Detail

Visa and Mastercard created a specialized type of credit card used primarily by government agencies and businesses. Businesses that accept these cards enable their government or corporate clients to include special purchase information (level 2 card data) that will help the government agency or corporation reconcile the transaction. In exchange for enabling Level 2 Card data acceptance, merchants receive their funds quicker, pay lower fees, and have a greater chance of winning government contracts where purchasing cards are the required form of payment.

The following is an example of a basic **Sale** transaction request with additional Level 2 card data:

```
<?xml version="1.0" encoding="UTF-8"?>
<Order>
  <StoreID>teststore</StoreID>
  <Passphrase>psigate1234</Passphrase>
  <Subtotal>10.00</Subtotal>
  <PaymentType>CC</PaymentType>
  <CardAction>0</CardAction>
  <CardNumber>4111111111111111</CardNumber>
  <CardExpMonth>02</CardExpMonth>
  <CardExpYear>08</CardExpYear>
  <CardLevel2ComCardType>B</CardLevel2ComCardType>
  <CardLevel2PO>Order 18</CardLevel2PO>
  <CardLevel2Tax>15.00</CardLevel2Tax>
</Order>
```

This request informs the card-issuing bank that the Credit Card type is “business”, the purchase order information is “Order 18” and the total sales tax applied to the order is fifteen dollars. The card-issuing bank may display this information on your customer’s credit card statement.

Note: Some card-issuing banks require Card Level 2 data.

The Response Structure

PSiGate's payment engine will return a formatted XML response to any server that sends a transaction request to the *XML Messenger Interface*. A *Result* element similar to the *Request* element will envelop the response.

The following is an example of a formatted XML response:

```
<?xml version="1.0" encoding="UTF-8"?>
<Result>
  <TransTime>Mon Nov 08 20:21:06 PST 2004</TransTime>
  <OrderID>2004110820210605147</OrderID>
  <Approved>APPROVED</Approved>
  <ReturnCode>Y:TEST:TESTTRANS:M:X:YYY</ReturnCode>
  <ErrMsg></ErrMsg>
  <TaxTotal>5.00</TaxTotal>
  <ShipTotal>15.00</ShipTotal>
  <SubTotal>55.00</SubTotal>
  <FullTotal>75.00</FullTotal>
  <PaymentType>CC</PaymentType>
  <CardNumber>411111...1111</CardNumber>
  <CardExpMonth>05</CardExpMonth>
  <CardExpYear>07</CardExpYear>
  <TransRefNumber>1bd0082c392b7c5b</TransRefNumber>
  <CardIDResult>M</CardIDResult>
  <AVSResult>X</AVSResult>
  <CardAuthNumber>TEST</CardAuthNumber>
  <CardRefNumber>TESTTRANS</CardRefNumber>
  <CardType>VISA</CardType>
  <IPResult>YYY</IPResult>
  <IPCountry>CA</IPCountry>
  <IPRegion>Ontario</IPRegion>
  <IPCity>Toronto</IPCity>
</Result>
```

The **bolded** elements are common to all payment types. The *italicized* values are specific to the credit card payment type. Please refer to the ***Result Elements – Payment Type Credit Card*** table for more details regarding the credit card payment type return values. The *Approved* sub element indicates the success of the transaction request. If the *Approved* sub element returned any value other than “APPROVED”, the transaction request was unsuccessful. Please refer to the ***Result Elements – Common Elements*** table for more details regarding other possible return values for the *Approved* sub element.

Payment Type – Credit Card

Sale

Sale transactions (*CardAction* = 0) authorize and capture funds in a single transaction. Merchants perform *Sale* transactions when services or products are immediately delivered such as with software download or service membership.

PreAuth

PreAuth transactions (*CardAction* = 1) authorize and reserve funds, but do not capture funds unless you issue a PostAuth transaction request that corresponds with the PreAuth. Merchants perform PreAuth transactions when services or products are not immediately delivered such as with most physical goods. Card issuers will reserve the authorized amount for at least five days.

PostAuth

PostAuth transactions (*CardAction* = 2) capture funds that were reserved by previous PreAuth transactions. Merchants perform PostAuth transactions when they initiate the delivery of the associated service or product. In the case of physical goods, you may only issue PostAuth transactions once the product has been shipped or prepared for shipment.

PostAuth - PSiGate will capture the full amount of the associated PreAuth transaction when you issue a PostAuth transaction with no *SubTotal* value.

Partial PostAuth - PSiGate will capture an amount less than the full amount of the associated PreAuth transaction when you issue a PostAuth transaction with a *SubTotal* value less than the amount indicated within the *SubTotal* of the PreAuth transaction.

Note: PSiGate's reporting tool includes PostAuth functionality; however you may also decide to program PostAuth functionality into your own reporting tool. If you do include PostAuth functionality, you will need to enable the PostAuth real-time restriction within your "CC Fraud Settings" panel of your online **Merchant Tools**.

Credit

Credit transactions (*CardAction* = 3) debit the merchant's account and credit the account of the cardholder. Merchants perform Credit transactions to refund their customers. You can issue multiple Credit transaction requests so long as the sum of those transactions does not exceed the amount of the approved Sale or PostAuth transaction. If the total amount of credits equals the amount of approved Sale or PostAuth transaction, the order will be cancelled.

Forced PostAuth

Forced PostAuth transactions (*CardAction* = 4) capture funds based on an authorization number that was previously obtained from PSiGate or from outside of PSiGate. Example: Merchant authorizes a transaction through the authorization center of their

merchant-issuing bank. Merchant performs a Forced PostAuth transaction to settle the already authorized transaction.

Warning: The financial institution will reverse a Forced PostAuth transaction if its amount does not equal the amount that was previously authorized.

Extended PostAuth

Extended PostAuth transactions (*CardAction* = 6) capture funds that were previously authorized by PreAuth transactions whose reservation of those funds has expired.

Note: If you use an Extended Post Auth transaction request to capture funds, the transaction will be considered a non-qualified order by your merchant account provider which could cause the discount rate charged to you to be nominally higher. To determine your qualified and non-qualified discount rate, please contact your merchant account provider.

Note: When capturing funds for sold physical goods, VISA/MC regulations state that merchants should only capture funds once the product has been shipped or is in the process of being shipped.

Note: PSiGate's reporting tool includes this functionality by way of a Forced Confirm Selected Orders button within the Confirm Orders screen. You may also decide to program this functionality into your own reporting tool. If you do, you will need to enable the PostAuth real-time restriction within your "CC Fraud Settings" panel of your online ***Merchant Tools***.

Void

Void transactions (*CardAction* = 9) cancel the effect of a previous transaction. Merchants perform Void transaction requests to reverse a PostAuth, Sale or Credit transaction and to prevent a transaction record from displaying on a customer's credit card statement. Example: A Sale followed by a Credit would appear as two separate transactions on a cardholder's statement. A Sale followed by a Void would result in neither transaction appearing on the cardholder's statement. The limitation of a Void transaction is that you cannot void a transaction that has already been settled.

Note: Transactions are settled at midnight by default.

Payment Type – Visa Debit Card (Hybrid cards)

Visa Debit cards allow card holders to safely pay for things directly from their bank account, but is accepted at more places when you shop online and around the world because it uses the VISA network.

Card holders who use their Visa Debit card online are protected with [Visa Layers of Security](#) including [Zero Liability](#) and the [Visa E-Promise](#).

To accept your customers' Visa Debit cards, you must send an email to merchant.services@psigate.com to request that Visa Debit acceptance is enabled on your store.

Please note the following differences in the way Visa Debit card transactions are handled versus credit card transactions.

- Visa Debit card transactions cannot be pre-authorized since there is never a situation in which funds are not captured. Since funds are not reserved, PSiGate will convert any *PreAuth* requests involving Visa debit cards to *Sale* requests prior to the request being processed by our gateway.
- You may not void Visa Debit card orders. You may only credit (refund) orders involving Visa Debit cards.
- To distinguish Visa Debit card transactions from credit card transactions, look for "VISADEBIT" to be returned within the *DebitType* element.

Order Elements

All requests require the following elements:

Element	Example	Description
<i>StoreID</i>	Teststore	PSiGate provides the <i>StoreID</i> within the <i>PSiGate Welcome Email</i> . Note: <i>StoreID</i> is unique and case sensitive.
<i>Passphrase</i>	Testpass	PSiGate provides the <i>Passphrase</i> within the <i>PSiGate Welcome Email</i> . Note: <i>Passphrase</i> is case sensitive.
<i>PaymentType</i>	CC	The <i>PaymentType</i> element denotes the payment method. CC – Credit Card Note: Currently, only the credit card payment method is available real-time.
<i>CardAction</i>	0, 1, 2, 3, 4, 6, 9	Indicates the type of transaction request you wish to perform. 0 – Sale 1 – PreAuth 2 – PostAuth 3 – Credit 4 – Forced PostAuth 6 – Extended Post Auth 9 – Void Information on these transaction types is found within the <i>PaymentType –Credit Card</i> table.

Note: All elements and values are case sensitive.

Sale Elements

Element	Example	Description
<i>StoreID</i>	Teststore	PSiGate provides the <i>StoreID</i> within the <i>PSiGate Welcome Email</i> . Note: <i>StoreID</i> is unique and case sensitive.
<i>Passphrase</i>	Testpass	PSiGate provides the <i>Passphrase</i> within the <i>PSiGate Welcome Email</i> . Note: <i>Passphrase</i> is case sensitive.
<i>PaymentType</i>	CC	See <i>Order Elements</i> table
<i>CardAction</i>	0	0 for Sale transactions.
<i>Subtotal</i>	1.00	Amount authorized and processed Note: Must be greater than zero.
<i>CardNumber</i>	4111111111111111	Valid Mod10 Number
<i>CardExpMonth</i>	07	Two-digit Card Expiration Month. Note: PSiGate shall recognize only the first two digits if more than two digits are given.
<i>CardExpYear</i>	09	Two-digit Card Expiration Year. Note: PSiGate shall recognize only the first two digits if more than two digits are given.

PreAuth Elements

Element	Example	Description
<i>StoreID</i>	teststore	PSiGate provides the <i>StoreID</i> within the <i>PSiGate Welcome Email</i> . Note: <i>StoreID</i> is unique and case sensitive.
<i>Passphrase</i>	Testpass	PSiGate provides the <i>Passphrase</i> within the <i>PSiGate Welcome Email</i> . Note: <i>Passphrase</i> is case sensitive.
<i>PaymentType</i>	CC	See Order Elements table
<i>CardAction</i>	1	1 for PreAuth transactions.
<i>Subtotal</i>	1.00	Amount to authorize Note: Must be greater than zero.
<i>CardNumber</i>	4111111111111111	Valid Mod10 Number.
<i>CardExpMonth</i>	07	Two-digit Card Expiration Month. Note: PSiGate shall recognize only the first two digits if more than two digits are given.
<i>CardExpYear</i>	09	Two-digit Card Expiration Year. Note: PSiGate shall recognize only the first two digits if more than two digits are given.

PostAuth Elements

This action allows merchants to confirm a PreAuth less than or equal to 5 days old.

Element	Example	Description
<i>StoreID</i>	teststore	PSiGate provides the <i>StoreID</i> within the PSiGate Welcome Email. Note: <i>StoreID</i> is unique and case sensitive.
<i>Passphrase</i>	Testpass	PSiGate provides the <i>Passphrase</i> within the PSiGate Welcome Email. Note: <i>Passphrase</i> is case sensitive.
<i>PaymentType</i>	CC	See <i>Order Elements</i> table
<i>CardAction</i>	2	2 for PostAuth transactions.
<i>OrderID</i>	200409191133332929	The <i>OrderID</i> of the pre-authorized order to be confirmed.
<i>Subtotal</i>	1.00	Amount to confirm for settlement. You are not required to submit the <i>Subtotal</i> within a PostAuth transaction request. If you provide a <i>Subtotal</i> , PSiGate will confirm the order for the submitted amount. If you do not provide a <i>Subtotal</i> , PSiGate will confirm the order for the amount referenced in the PreAuth transaction. Note: Must be equal to or less than the amount of the original transaction and greater than or equal to zero. If you provide a zero dollar amount, the <i>Subtotal</i> will become the amount of the original transaction.

Note: You do not need to include Credit Card information within PostAuth transaction requests.

Credit Elements

Tag	Example	Description
<i>StoreID</i>	teststore	PSiGate provides the <i>StoreID</i> within the <i>PSiGate Welcome Email</i> . Note: <i>StoreID</i> is unique and case sensitive.
<i>Passphrase</i>	Testpass	PSiGate provides the <i>Passphrase</i> within the <i>PSiGate Welcome Email</i> . Note: <i>Passphrase</i> is case sensitive.
<i>PaymentType</i>	CC	See <i>Order Elements</i> table
<i>CardAction</i>	3	3 for Credit transactions
<i>OrderID</i>	200409191133332929	The <i>OrderID</i> of the order you wish to credit.
<i>Subtotal</i>	1.00	The amount credited to your customer's card. Note: You must submit a <i>SubTotal</i> amount greater than zero and equal to or less than the balance remaining on the order. If at the end of the transaction, the balance remaining is zero, the order has been cancelled.

Note: A Credit transaction request does not need credit card information.

Forced PostAuth Elements

Element	Example	Description
<i>StoreID</i>	Teststore	PSiGate provides the <i>StoreID</i> within the <i>PSiGate Welcome Email</i> . Note: <i>StoreID</i> is unique and case sensitive.
<i>Passphrase</i>	Testpass	PSiGate provides the <i>Passphrase</i> within the <i>PSiGate Welcome Email</i> . Note: <i>Passphrase</i> is case sensitive.
<i>PaymentType</i>	CC	See <i>Order Elements</i> table
<i>Subtotal</i>	10.00	The authorized amount.
<i>CardAction</i>	4	4 for Forced PostAuth transactions
<i>CardNumber</i>	4111111111111111	Valid Mod10 Number
<i>CardExpMonth</i>	08	Two-digit Card Expiration Month. Note: PSiGate shall recognize only the first two digits if more than two digits are given.
<i>CardExpYear</i>	06	Two-digit Card Expiration Year. Note: PSiGate shall recognize only the first two digits if more than two digits are given.
<i>CardAuthNumber</i>	102145	You may input within this element the authorization number given by your customer's financial institution during a voice authorization or a previous PreAuth or Sale performed through PSiGate. Note: Match the value given by your customer's financial institution otherwise PSiGate will reject the settlement request.

Extended PostAuth Elements

This action allows merchants to confirm a PreAuth less than or equal to 15 days old.

Element	Example	Description
<i>StoreID</i>	Teststore	PSiGate provides the <i>StoreID</i> within the <i>PSiGate Welcome Email</i> . Note: <i>StoreID</i> is unique and case sensitive.
<i>Passphrase</i>	Testpass	PSiGate provides the <i>Passphrase</i> within the <i>PSiGate Welcome Email</i> . Note: <i>Passphrase</i> is case sensitive.
<i>PaymentType</i>	CC	See <i>Order Elements</i> table
<i>Subtotal</i>	10.00	The authorized amount.
<i>CardAction</i>	6	6 for Extended PostAuth transactions
<i>OrderID</i>	200409191133332929	The <i>OrderID</i> of the order you wish to confirm.

Void Elements

Element	Example	Description
<i>StoreID</i>	teststore	PSiGate provides the <i>StoreID</i> within the <i>PSiGate Welcome Email</i> . Note: <i>StoreID</i> is unique and case sensitive.
<i>Passphrase</i>	Testpass	PSiGate provides the <i>Passphrase</i> within the <i>PSiGate Welcome Email</i> . Note: <i>Passphrase</i> is case sensitive.
<i>PaymentType</i>	CC	See <i>Order Elements</i> table
<i>CardAction</i>	9	9 for Void transactions
<i>OrderID</i>	200409191133332929	The <i>OrderID</i> references the Sale , PostAuth or Credit you wish to void.
<i>TransRefNumber</i>	07abef21992	Transaction requests return a unique <i>TransRefNumber</i> to reference the requests. Void transactions cancel the referred request.

Detailed Element List – General Order Elements

Element	Example	Length /Validation	Description
<i>StoreID</i>	teststore	25/AN	<p>PSiGate provides the <i>StoreID</i> within the <i>PSiGate Welcome Email</i>.</p> <p>Note: <i>StoreID</i> is unique and case sensitive.</p>
<i>Passphrase</i>	Testpass	32/AN	<p>PSiGate provides the <i>Passphrase</i> within the <i>PSiGate Welcome Email</i>.</p> <p>Note: <i>Passphrase</i> is case sensitive.</p>
<i>TestResult</i>	A,D,R,F	1/A	<p>You may set the <i>TestResult</i> element to simulate bank responses. PSiGate will return a simulated transaction result once the transaction request passes fulfillment and fraud checks.</p> <p>A – Simulates an approved response. D – Simulates a declined response. R – Randomly simulates an approved or declined response. F – Simulates a fraud response.</p>
<i>OrderID</i>	PsiOrder0001	100/AN	<p>For PostAuth, Credit, and Void transactions, you must include an <i>OrderID</i> that is the same as the <i>OrderID</i> of the associated transaction request.</p> <p>For Sale, PreAuth, and Force PostAuth transactions, you are not required to include an <i>OrderID</i> since PSiGate will automatically generate an <i>OrderID</i> on your behalf; however if you do choose to submit the <i>OrderID</i>, ensure that it is unique.</p> <p>Note: You may not reuse an <i>OrderID</i> that was used within an approved transaction request however you may reuse an <i>OrderID</i> submitted within a declined transaction request.</p>

Userid	jsmith	64/AN	<p>You may use the <i>Userid</i> to track your users or some other purpose.</p> <p>PSiGate's transaction server does not use the <i>Userid</i>.</p> <p>Note: You may sort based on the <i>Userid</i> within the Reports</p>
Bname	John Smith	100/AN	Billing Name
Bcompany	PSiGate	100/AN	Billing Company
Baddress1	123 Main St	100/AN	Billing Address1
Baddress2	Suite 987	100/AN	Billing Address2
Bcity	Toronto	100/AN	Billing City
Bprovince	ON	100/AN	<p>Billing Province/State/Region</p> <p>Please use ISO 3166-2 Province and State codes. Use FIPS 10-4 Region codes for outside Canada and US. Use of these codes will increase IP fraud checking accuracy.</p>
Bpostalcode	L5N5V2,90120	100/AN	Billing Postal/Zip code
Bcountry	CA	50/AN	<p>Billing Country</p> <p>Please use ISO 3166 Country Codes. Use of these codes will increase IP fraud checking accuracy.</p>
Sname	John Smith	100/AN	Shipping Name
Scompany	Psigate	100/AN	Shipping Company
Saddress1	123 Main St	100/AN	Shipping Address1
Saddress2	Suite 987	100/AN	Shipping Address2
Scity	Toronto	100/AN	Shipping City
Sprovince	ON	100/AN	Shipping Province/State/Region
Spostalcode	L5N5V2,90120	100/AN	Shipping Postal/Zip code
Scountry	CA	50/AN	Shipping Country
Phone	905-555-5555	50/AN	Billing Phone
Fax	905-555-5555	50/AN	Billing Fax
Email	jsmith@domain.com	100/Email	Email address to receive E-mail receipt.
Comments	None today	300/AN	Comments regarding a transaction

<i>Tax1</i>	1.00	N	<p>Component of <i>TaxTotal</i> amount.</p> <p>PSiGate calculates the sum of all of the <i>Tax1</i> through to <i>Tax5</i> element values and submits the sum within the <i>TaxTotal</i> element.</p>
<i>Tax2</i>	2.00	N	Component of <i>TaxTotal</i> amount.
<i>Tax3</i>	3.00	N	Component of <i>TaxTotal</i> amount.
<i>Tax4</i>	4.00	N	Component of <i>TaxTotal</i> amount.
<i>Tax5</i>	5.00	N	Component of <i>TaxTotal</i> amount.
<i>ShippingTotal</i>	15	N	Total shipping dollar amount
<i>Subtotal</i>	30	N	<p>Required for all transactions except PostAuth and Void.</p> <p>If items are added, their sum dollar amount will override this value.</p> <p>You must submit a <i>Subtotal</i> value greater than or equal to 0.</p>
<i>CustomerIP</i>	xxx.xxx.xxx.xxx	15/AN	<p>Customer's IP address.</p> <p>IP fraud checking through PSiGate's online reporting tool relies on this variable's value.</p>

Detailed Element List – Credit Card Payment

Element	Example	Length /Validation	Description
<i>PaymentType</i>	CC	25/AN	<p>The <i>PaymentType</i> element denotes the payment method.</p> <p>CC – Credit Card</p> <p>Note: Currently, only the credit card payment method is available real-time. PSiGate will add payment methods such as E-cheque and ACH in the near future.</p>
<i>CardAction</i>	0,1,2,3,4,6,9	1/N	<p>Indicates the type of transaction request you wish to perform.</p> <p>0 – Sale 1 – PreAuth 2 – PostAuth 3 – Credit 4 – Forced PostAuth 6 – Extended PostAuth 9 – Void</p> <p>You may find information about these transaction types within the <i>PaymentType –Credit Card</i> table.</p>
<i>CardNumber</i>	4111111111111111 111	N	<p>Credit Card Number</p> <p>Note: Any spaces or dashes inputted will be removed prior to processing.</p>
<i>CardExpMonth</i>	05	2-Digit Numeric	Credit Card Expiry Month
<i>CardExpYear</i>	09	2-Digit Numeric	Credit Card Expiry Year
<i>CardAuthNumber</i>	182819	N	<p>The <i>CardAuthNumber</i> stores the authorization number given by a financial institution during a voice authorization or a previous PreAuth or Sale performed through PSiGate.</p> <p>Note: Your financial institution will reject our nightly settlement requests if this value does not match the value returned by your financial institution.</p>

<i>TransRefNumber</i>	0124ae4	18/AN	Each transaction request returns a unique <i>TransRefNumber</i> . The <i>TransRefNumber</i> references transaction requests. Void transactions cancel the referred request.
<i>CardIDCode</i>	0,1,2,9	1/Numeric	Passes the status for Visa CVV2, MasterCard CVC2, and Amex CID. If unknown leave blank. 0 = Bypassed 1 = Value present 2 = Value illegible 9 = Card has no CVV2 value
<i>CardIDNumber</i>	111, 9999	3-4 Digit Numeric	Passes Visa CVV2, MasterCard CVC2, and Amex CID numbers
<i>CardXid</i>	28281917e2191839183 719128829	28/AN	Passes Visa Secure 3D and Mastercard UCAF fields. Note: The length of the value returned by <i>CardXID</i> is 28 characters.
<i>CardECI</i>	7	N	Passes Visa Secure 3D and Mastercard UCAF fields.
<i>CardCavv</i>	28281917e2191831918 371928829	28/AN	Passes Visa Secure 3D and Mastercard UCAF fields. Note: The length of the value returned by <i>CardCavv</i> is 28 characters.
<i>CardLevel2ComCardType</i>	B, C, P	1/A	Passes the commercial card type. If unknown, leave blank. B = Business C = Corporate P = Purchasing
<i>CardLevel2PO</i>	Order 18	25/AN	Purchase order information displayed on the customer's credit card statement if it supports Purchase Level 2 data.
<i>CardLevel2Tax</i>	15.00	N	Tax amount displayed on the customer's credit card statement if it supports Purchase Level 2 data.

Detailed Element List – Item Elements

Item Element	Example	Length /Validation	Description
<i>ItemID</i>	PSI-BOOK	50/AN	Merchant reference to the item. Typically, a product or item code.
<i>ItemDescription</i>	PsiGate User Manual	200/AN	Description of the product, item or service.
<i>ItemQty</i>	1	N	Quantity of the purchased item.
<i>ItemPrice</i>	10.00	N	The Unit Cost of the Item
<i>Option</i>	Please see <i>Option Elements</i>	Please see Option Elements	Please see <i>Option Elements</i>
<p>Note: PSiGate calculates the individual item totals (<i>ItemQty</i> multiplied by <i>ItemPrice</i>) and the item subtotal (sum of item totals) if you add items to an order.</p> <p>The calculated item subtotal will replace the value given in the <i>SubTotal</i> element.</p> <p>Each item's total can be less than zero, but the item subtotal must be greater than or equal to zero.</p>			

Detailed Element List – Option Elements

Option Element	Example	Length /Validation	Description
<UserDefined>	<Type>HardCover</Type>	50/AN	Additional Item Information.
<p>Option elements allow the creation of additional item descriptions that you might require. Options are defined within an Item context. See <i>Adding Option Detail</i></p>			

Result Elements

Result Elements – Payment Type: All

Result Element	Example	Length /Validation	Description
<i>TransTime</i>	Mon Nov 08 20:21:06 PST 2004	50/AN	Time stamp of the transaction request.
<i>OrderID</i>	Order1	100/AN	<i>OrderID</i> of the transaction. Either an echo of the user's input or a system generated value.
<i>Approved</i>	APPROVED	50/AN	<p>There are three possible values:</p> <p>APPROVED - The transaction request was approved.</p> <p>DECLINED - The transaction request was accepted as a valid request and was declined by the card issuing bank.</p> <p>Note: Check the Return Code and ErrMsg for details.</p> <p>ERROR - The transaction request encountered an error.</p> <p>Note: Check the Return Code and ErrMsg for details.</p>

<i>ReturnCode</i>	Y:123221:431319003178:M:N:YYY	50/AN	<p>Summary of result codes returned from the transaction request. The first character indicates whether the transaction was approved or declined.</p> <p>A “Y” signifies the transaction request was approved. Any other value indicates the transaction request was declined.</p> <p>PSiGate returns the <i>ReturnCode</i> in any one of the following formats:</p> <p>N:ERROR – An error occurred and the request was not completed. See <i>ErrMsg</i> for details.</p> <p>N:FRAUD – The transaction request activated a fraud condition. See <i>ErrMsg</i> for details.</p> <p>If the <i>PaymentType</i> is “CC”, the following formats are also possible:</p> <p>N:Bank Error Code/Dcline MSG.</p> <p>Y:CardAuthNumber:CardRefNumber:CardIDResult:AVSResult:IPResult</p>
<i>ErrMsg</i>	PSI-3000:TESTFRAUD.	150/AN	<p>Error Message detail. Populated if the <i>ReturnCode</i> is “N:ERROR” or “N:FRAUD”. The format is <i>ERRORCODE:ERRORTTEXT</i>. Where ERRORCODE is the system assigned error code and ERRORTTEXT is a text summary that describes the ERRORCODE.</p>

<i>TaxTotal</i>	5.00	N	Calculated Tax Total. Sum of the five tax elements.
<i>ShipTotal</i>	15.00	N	The echo of the submitted <i>ShippingTotal</i> value
<i>SubTotal</i>	55.00	N	Either an echo of the submitted <i>SubTotal</i> value or the calculated item subtotal if you pass item information. In some cases, such as when processing a Void transaction, the returned <i>SubTotal</i> will equal the value of the referenced transaction.
<i>FullTotal</i>	75.00	N	The sum of the <i>TaxTotal</i> , <i>ShipTotal</i> , and <i>SubTotal</i> elements.
<i>PaymentType</i>	CC	25/AN	The <i>PaymentType</i> element denotes the payment method. CC – Credit Card Note: Currently, only the credit card payment method is available real-time. PSiGate will add payment methods such as E-cheque and ACH in the near future.

Result Elements – Payment Type: Credit Card & Visa Debit Card

Result Element – Credit Card	Example	Length /Validation	Description
<i>CardNumber</i>1111	25/AN	Abbreviated card number used within a transaction.
<i>TransRefNumber</i>	0124ae4	18/AN	Each transaction request generates and returns a unique <i>TransRefNumber</i> when the transaction request contains the minimum required elements as outlined in <i>Order Elements</i> and the values are valid.
<i>CardIDResult</i>	M	25/AN	M – Match N – No match P – Not processed S – Not passed U – Issuer does not support CardID verification Blank – Not passed or not processed.
<i>AVSResult</i>	X	25/AN	X- Exact match, 9-digit zip Y- Exact match, 5-digit zip A – Address match W – 9-digit zip match only Z – 5-digit zip match only N – No address or zip match U – Address unavailable R – Card Issuer system unavailable E – Not a MOTO order S – Service not supported Blank – Not processed Note: For AVS to function, you must enter the numeric street address into <i>Baddress1</i> and the zip/postal code into <i>Bpostalcode</i> .
<i>CardAuthNumber</i>	123456	N	Card authorization number from the financial institution that issued the

			card.
<i>CardRefNumber</i>	177e541278a	AN/25	Transaction reference number assigned by the bank processor. Note: PSiGate only uses the <i>CardRefNumber</i> element for reference during the reconciliation process.
<i>CardType</i>	VISA	AN/10	Credit card type
<i>DebitType</i>	VISADEBIT	AN/9	Only returned for transactions where the card number is a visa debit card.
<i>IPResult</i>	YYY	AN/3	The IP fraud result. First Character – Country match Second Character – Region match Third Character – City match Y - Match N - No match
<i>IPCountry</i>	CA	AN/2	Country of the submitted IP address. UN – IP address unknown or unable to determine
<i>IPRegion</i>	Mississauga	AN/50	Region, state or province of the submitted IP address. UN – IP address unknown or unable to determine
<i>IPCity</i>	Toronto	AN/50	City of the submitted IP address. UN – IP address unknown or unable to determine

Changes from version 1.03

Deleted the note that referred to the cancellation of a PreAuth.

Note: To cancel a **PreAuth**, issue a **PostAuth** transaction with a *FullTotal* value of “0.00”. PSiGate will prevent further modification of the order and attempt to release the existing reservation of funds held on the cardholder’s account depending on the policies of your processor or your customer’s card issuer.

Clarified second sentence of the **Void** subheading.

Simplified the *TransRefNumber* description.

Removed a note within the *CustomerIP* description that referred to the **Reports’** ability to block IP addresses.

Changed the word “shall” to “will” within the future payment methods note in the *PaymentType* description.

Changes from version 1.04

Updated Table of Contents fields so that the Bookmarks are all valid.

Included Testing Account Information.

Changes from version 1.055

Changed the wording of where test transactions are to be sent.

Changed the test password to “psigate1234”

Changes from version 1.06

A note was included to enter the street address and zipcode of the customer within *Baddress1* and *Bpostalcode* to allow the AVS response to function properly.

Changes from version 1.07

Fraud checking detail was added.

Changes from version 1.08

Coupon detail was added.

Added a note that the ampersand symbol (“&”) is an invalid character.

Changes from 1.092

CardExpMonth and *CardExpYear* removed from the list of returned credit card elements.

Changes from 1.093

For transaction requests, all instances of SubTotal were changed to “Subtotal”. “SubTotal” is only used within the response.

Changes from 1.094

Various stylistic edits.

Changes from 1.101

Added DebitType to the list of returned response elements. We will return “VISADEBIT” if the card number is a VISA debit card.